CLAIM LISTING

Claim 1 (Currently Amended): A method of ~~monitoring expression of one or more genes~~ identifying a gene associated with oral cancer ~~in one or more cells,~~ comprising:

contacting [[an]] a first array of probes with a first population of nucleic acids derived from a human subject from one or more cells obtained from malignant oral tissue;

contacting a second array of probes with a second population of nucleic acids derived from the human subject from one or more cells obtained from normal oral tissue; and

determining relative hybridization of the first array of probes to the first population of nucleic acids relative to hybridization of the second array of probes to the second population of nucleic acids, wherein a gene that hybridizes differently is associated with oral cancer.

Claim 2 (Currently Amended): A method of expression monitoring comprising[[,]]:

contacting a first array of probes with a first population of nucleic acids derived from at least one cell derived from normal tissue from a human subject;

contacting a second array of probes with a second population of nucleic acids derived from at least one cell derived from malignant oral tissue from the human subject; and

determining ~~the relative~~ binding of the first array of probes to the nucleic acids from the first population relative to the binding of the second array of probes to the nucleic acids from the second population ~~and second populations~~ to identify at least one probe binding to a gene that is differentially expressed between the first and second populations.

Claim 3 (Withdrawn): A method of classifying malignant oral cells, comprising:

determining an expression profile of each of a plurality of cells derived from malignant oral tissue; and

classifying the cells in clusters determined by similarity of expression profile.

Claim 4 (Withdrawn): A method of monitoring differentiation of a malignant oral cell lineage, comprising:

determining an expression profile of each of a plurality of cells derived from malignant oral tissue at different differentiation stages within the lineage;

classifying the cells in clusters determined by similarity of expression profile;

ordering the clusters by similarity of expression profile; and

determining a time course of expression levels for each of the plurality of genes at different stages of differentiation in the malignant oral cell lineage.

Claim 5   (Withdrawn): A method for identifying differentially expressed transcripts associated with oral cancer, comprising:

determining an expression profile of each of a plurality of cells derived from malignant oral tissue at different differentiation stages within the lineage;

classifying the cells in clusters determined by similarity of expression profile;

ordering the clusters by similarity of expression profile;

determining a time course of expression levels for each of the plurality of genes at different stages of differentiation in the cell lineage; and

identifying differentially expressed transcripts.

Claim 6   (Withdrawn): A method of identifying an oral cancer-associated cell type comprising:

determining an expression profile of a plurality of cells derived from malignant oral tissue;

classifying the cells in clusters determined by similarity of expression profile; and

determining the nature and function of a plurality of cells.

Claim 7   (Currently Amended): A method of diagnosing a <u>human</u> subject with oral cancer, the method comprising ~~comparing~~:

<u>detecting</u> the level of expression of ~~at least one~~ <u>a</u> marker selected from a group of markers associated with oral cancer in a <u>test</u> sample from ~~a~~ <u>the human</u> subject; and

<u>detecting</u> the ~~normal~~ level of expression of the marker in a control sample from normal tissue <u>from the human subject,</u>

wherein ~~a significant difference between~~ the level of expression of the marker in the <u>control</u> sample <u>differs</u> from <u>the level of expression of the marker in</u> the <u>test sample</u> ~~subject and the control sample from normal tissue is an indication that~~ <u>when</u> the subject is afflicted with oral cancer.

Claim 8   (Original): The method of claim 7, wherein the sample from the subject comprises cells obtained from the subject.

Claim 9   (Original): The method of claim 8, wherein the cells are obtained from oral tissue.

Claim 10   (Original): The method of claim 8, wherein the cells are obtained from blood cells.

Claim 11 (Currently Amended): The method of claim 7, wherein the levels of expression of the marker in the control sample and in the test sample are is assessed by a method comprising:

contacting a first array of probes with a first population of nucleic acids derived from one or more cells from [[a]] the test sample subject;

contacting a second array of probes with a second population of nucleic acids derived from one or more cells from [[a]] the normal control sample; and

determining relative hybridization of the first array of probes to the first population of nucleic acids in the first array to the relative hybridization of the second array of probes to the second population of nucleic acids in the second array.

Claim 12 (Currently Amended): The method of claim 11, wherein the first and second population of nucleic acids are [[is]] RNA.

Claim 13 (Currently Amended): The method of claim 11, wherein the first and second population of nucleic acids are [[is]] DNA.

Claim 14 (Currently Amended): The method of claim 11, wherein the first population of nucleic acids is amplified prior to contacting to the first array of probes or the second population of nucleic acids is amplified prior to contacting the second array of probes.

Claim 15 (Withdrawn): The method of claim 7, wherein the level of expression of the marker in the sample from a subject is assessed by detecting the presence in the sample of a protein corresponding to the marker.

Claim 16 (Withdrawn): The method of claim 15, wherein the presence of the protein is detected using a reagent which specifically binds with the protein.

Claim 17 (Withdrawn): The method of claim 16, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

Claim 18 (Currently Amended): The method of claim 7, wherein the level of expression of the marker in the sample is a assessed by detecting the presence in the sample of at least one nucleic acid, wherein the nucleic acid comprises the marker.

Claim 19 (Original): The method of claim 18, wherein the nucleic acid is RNA.

Claim 20 (Original): The method of claim 18, wherein the nucleic acid is DNA.

Claim 21 (Original): The method of claim 18, wherein one or more nucleic acids is amplified prior to assessing the sample.

Claim 22 (Currently Amended): A method for monitoring the progression of oral cancer in a human subject, the method comprising:

detecting in a first sample obtained from the human subject at a first point in time, the expression of at least one a marker selected from a group of markers associated with oral cancer;

detecting in a subsequent sample obtained from the human subject at a subsequent point in time, the expression of the at least one marker, and

comparing the level of expression detected in the first and subsequent detecting samples steps, in order to monitor the progression of oral cancer.

Claim 23 (Currently Amended): The method of claim 22, wherein the first and the subsequent samples comprise[[s]] cells obtained from the subject.

Claim 24 (Original): The method of claim 23, wherein the cells are obtained from oral tissue.

Claim 25 (Original): The method of claim 23, wherein the cells obtained are blood cells.

Claim 26 (Withdrawn): A method of assessing the efficacy of a test compound for inhibiting oral cancer in a subject, the method comprising comparing:

expression of at least one marker selected from a group of markers associated with oral cancer in a first sample obtained from the subject and exposed to or maintained in the presence of the test compound, and

expression of the marker in a second sample obtained from the subject, wherein the second sample is not exposed to the test compound,

wherein an altered expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting oral cancer in the subject.

Claim 27 (Withdrawn): The method of claim 26 wherein the altered expression is a lower level of expression.

Claim 28 (Withdrawn): The method of claim 26 wherein the altered expression is a higher level of expression.

Claim 29 (Withdrawn): A method of assessing the efficacy of a therapy for inhibiting oral cancer in a subject, the method comprising comparing:

expression of at least one marker selected from a group of markers associated with oral cancer in the first sample obtained from the subject prior to providing at least a portion of the therapy to the subject, and

expression of the marker in a second sample obtained from the subject following provision of the portion of the therapy,

wherein an altered level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting oral cancer in the subject.

Claim 30 (Withdrawn): The method of claim 28 wherein the altered expression is a lower level of expression.

Claim 31 (Withdrawn): The method of claim 28 wherein the altered expression is a higher level of expression.

Claim 32 (Withdrawn): A method of selecting a composition for inhibiting oral cancer in a subject, the method comprising:

obtaining a sample comprising cells from the subject;

separately maintaining aliquots of the sample in the presence of a plurality of test compositions;

comparing expression of at least one marker selected from a group of markers associated with oral cancer in each of the aliquots, and

selecting one of the test compositions which induces an altered level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

Claim 33 (Withdrawn): The method of claim 31 wherein the altered level of expression is a lowered level of expression.

Claim 34 (Withdrawn): The method of claim 31 wherein the altered level of expression is a higher level of expression.

Claim 35 (Withdrawn): A kit for assessing whether a subject is afflicted with oral cancer, wherein the kit comprises reagents for assessing expression of at least one marker selected from the group markers associated with oral cancer.

Claim 36 (Withdrawn): A kit for assessing the presence of oral cancer cells, the kit comprising a nucleic acid probe wherein the probe specifically binds with at least one nucleic acid corresponding to at least one marker selected from the group of markers associated with oral cancer.